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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,256	01/30/2001	Jason S. Brownell	P-2170	4315

41505 7590 03/08/2005

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EXAMINER

NALVEN, ANDREW L

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/773,256

Applicant(s)

BROWNELL ET AL.

Examiner

Andrew L Nalven

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-75, 78 and 79 is/are rejected.
- 7) ☒ Claim(s) 76 and 77 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-79 are pending.
2. Amendment submitted 23 September 2004 has been entered.

Claim Objections

3. Claim 76 is objected to because of the following informalities: The cited claim contains an inadvertent period on line 4 and appears to inadvertently include the limitation "to an authorization provider of the originating prior requestor module." Appropriate correction is required.

Response to Arguments

4. Applicant's arguments filed 9/23/2004 have been fully considered but they are not persuasive.
5. Applicant has argued on page 16 that the Lipkin reference (US Patent No. 6,138,235) fails to teach the limitation "determining that the requesting module owns the certificate" as presented in claim 2. Examiner respectfully disagrees. Examiner contends that Lipkin does teach the determining that the requesting module owns the certificate (Lipkin, column 7 lines 15-33, column 5 lines 7-16). Lipkin teaches that each requesting module has its own public/private key pair and certificate (Lipkin, column 7 lines 15-19) and when a request is made a determining step is performed to ensure that

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that certificates are signed by proper private keys. Hence, verification is performed to ensure that the requesting module owns the public key/private key of the certificate (Lipkin column 5 lines 5-16).

6. Applicant's argument on page 17 regarding claims 2, 12, and 27 are moot in view of the new grounds of rejection.

7. Applicant has argued on page 18 that the Lipkin reference fails to teach, "receiving specified parameters from the requesting module including an authorization interface of the requesting module and an authorization interface of an original requestor module if applicable." Examiner respectfully disagrees. Examiner contends that Lipkin teaches an authorization interface (Figure 1, items 112 and 122) and sends parameters in the form of a role and certificates representing the requesting module (Lipkin, column 7 lines 15-39).

8. Applicant has argued in page 18, in regards to claims 38, 51, that the Lipkin reference fails to teach the interaction between three or more computer program modules involving a request to access a service from one of the three or more computer program modules. Examiner notes that the presented claimed limitations do not require three or more computer program modules. Instead, the presented limitations require only a requesting module and an adjunct program module. The indirect requestor is not presently required to be a module.

9. Applicant's arguments on page 18 regarding claim 63 are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1, 3, 11, 13-16, 24, 28, 36, 38-41, 49, 52-53, 61, 64-66, and 74 are rejected under 35 U.S.C. 102(e) as being anticipated by Lipkin et al US Patent No. 6,138,235. Lipkin discloses a system for controlling access to services between modular applications.

12. With regards to claims 1, 26, 39, and 64, Lipkin teaches the receiving of a request from a requesting module (Lipkin, column 7 lines 29-32, column 3 lines 58-60), receiving a certificate from the requesting module (Lipkin, column 7 lines 31-42), determining whether the certificate authorizes processing in response to the request (Lipkin, column 7 lines 35-39), and processing according to programming of the adjunct program module in response to the request upon a condition in which the certificate authorizes processing in response to the request (Lipkin, column 7 lines 47-53 and lines 4-6).

13. With regards to claims 13, 38, Lipkin teaches receiving of a request from a requesting module (Lipkin, column 7 lines 29-32, column 3 lines 58-60), receiving

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specified parameters from the requesting module including an authorization interface of the requesting module and an authorization interface of an original requestor of the requesting module if applicable (Lipkin, column 7 lines 1-4, 28-42, Figure 1 Items 112 and 122), requesting authorization from the requesting module according to the authorization interface (Lipkin, column 7 lines 1-4), receiving authorization data in response to the requesting authorization (Lipkin, column 7 lines 1-4, 28-42), determining whether the certificate authorizes processing in response to the request (Lipkin, column 7 lines 35-39), and processing according to programming of the adjunct program module in response to the request upon a condition in which the certificate authorizes processing in response to the request (Lipkin, column 7 lines 47-53 and lines 4-6).

14. With regards to claims 15, 40, 52, and 65, Lipkin teaches the verifying of the signature of the certificate by a certificate authority (Lipkin, column 7 lines 31-42).

15. With regards to claim 3, 14, 16, 28, 41, 53, and 66, Lipkin teaches the determining that the requesting module owns the certificate (Lipkin, column 7 lines 22-33).

16. With regards to claims 11, 24, 36, 49, 61 and 74, Lipkin teaches the determining that the certificate includes data specifying one or more types of actions permitted by the certificate (Lipkin, column 5 lines 27-53, column 6 lines 5-10) and determining that the one or more types of actions includes at least one type of action associated with processing to be performed in response to the request (Lipkin, column 7 lines 29-38 and 50-53).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 2 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipkin et al US Patent No. 6,138,235 in view of Koehler US Patent No. 6,301,658. Koehler describes a method of authenticating digital certificates issued by an authentication hierarchy.

19. With regards to claim 2 and 27, Lipkin fails to teach the authorizing of processing including determining whether the certificate has expired. Koehler teaches the authorizing of processing including determining whether the certificate has expired (Koehler, column 6 lines 9-30). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Koehler's method of determining certificate expiration because it offers the advantage of allowing an authentication system to easily removed expired certificates and allow replacement with newer certificates (Koehler, column 3 lines 22-33).

20. With regards to claims 12 and 26, Lipkin teaches all that is described above in regards to claim 1, but fails to teach the certificate including an owner field that identifies the owner of the certificate. Koehler teaches teach the certificate including an owner field that identifies the owner of the certificate (Koehler, column 6 line 66 – column 7 line 8). At the time the invention was made, it would have been obvious to a person of

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ordinary skill in the art to utilize Koehler's method including an owner field in a certificate because it offers the advantage of allowing verification of the owner of a certificate by verifying that their certificate corresponds to their private key public key pair (Koehler, column 2 lines 5-15).

21. Claims 4-7, 10, 17-20, 23, 29-32, 35, 42-45, 48, 54-57, 60, 67-70, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipkin et al US Patent No. 6,138,235 in view of Butt et al US Patent No. 6,754,829. Butt discloses a certificate based authentication system for heterogeneous environments.

22. With regards to claims 4, 17, 29, 42, 54, and 67, Lipkin fails to disclose the sending of test data and receiving a response. Butt teaches the sending of test data to the requesting module and the receiving of response data from the requesting module wherein the response data is derived from the test data in a manner that requires ownership of the certificate (Butt, column 6 lines 49-67). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Butt's method of sending test data with Lipkin's system of controlling access to modules because it offers the advantage of providing a method of proving that a certificate owner has the private key of the certificate pair (Butt, column 6 lines 56-59) thus allowing authentication of a certificate owner (Butt, column 6 lines 49-53).

23. With regards to claims 5, 7, 18, 20, 30, 32, 43, 45, 55, 57, 68, and 70, Lipkin as modified teaches the response data being derived from the test data in a manner that

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requires access to a private key that is associated with the certificate (Butt, column 6 lines 56-62).

24. With regards to claims 6, 19, 31, 44, 56, and 69, Lipkin as modified teaches the response data including a cryptographic signature of the test data (Butt, column 6 lines 59-62).

25. With regards to claims 10, 23, 35, 48, 60, and 73, Lipkin as modified teaches generating the test data randomly (Butt, column 6 lines 59-62).

26. Claims 12, 25, 37, 50, 62, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipkin et al US Patent No. 6,138,235. Lipkin fails to teach the module being a module in a dynamic link library. Examiner takes official notice that dynamic link libraries are well known in the art as a method of packaging modules and thus at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use dynamic link libraries as modules.

27. Claims 8-9, 21-22, 33-34, 46-47, 58-59, and 71-72 rejected under 35 U.S.C. 103(a) as being unpatentable over Lipkin et al US Patent No. 6,138,235 and Butt et al US Patent No. 6,754,829 as applied to claims 7, 20, 32, 45, 57, and 70 above, and further in view of Davis et al US Patent No. 6,088,450. Davis discloses an authentication system based on periodic challenge/response.

28. With regards to claims 8-9, 21-22, 33-34, 46-47, 58-59, and 71-72, Lipkin as modified fails to teach the encrypting of test data using the public key of the certificate

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and the response data being decrypted from the test data. Davis teaches the encrypting of test data using the public key of the certificate and the response data being decrypted from the test data (Davis, column 6 line 66 – column 7 line 10). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Davis' challenge/response method with Lipkin as modified because it offers the advantage of providing a method of verifying the authenticity of a remote entity (Davis, column 2 lines 50-58).

29. Claims 51, 63, and 78-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipkin et al US Patent No. 6,138,235 in view of Devine et al US Patent No. 6,598,167.

30. With regards to claims 51 and 63, Lipkin teaches all that is described above in regards to claim 13, but fails to teach a requesting module receiving its request from a prior requestor module. Devine teaches a requesting module receiving its request from a prior requestor module (Devine, column 8 line 61 to column 9 line 37, Figure 9 Customer 10 to Web Server 24 to Fulfilling Servers 40). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Devine's method of using proxy interface modules between the original requestor and the fulfilling module with Lipkin's system of controlling access to modules because it offers the advantage of increasing the overall system security and reducing the number of interfaces (Devine, column 9 line 32-37).

31. With regards to claims 78-79, Lipkin as modified teaches each of the requesting modules and prior requestor modules, including the originating prior requestor module, includes an authorization provider adapted so that the behavior of the authorization providers can be modified without requiring modification to other elements of the respective requesting and prior requestor modules (Devine, column 9 lines 38-42, 10-18, Figure 9 Item 24 validates, Item 26 verifies).

Allowable Subject Matter

32. Claims 76-77 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

33. The following is a statement of reasons for the indication of allowable subject matter: The cited claim provides the unique limitation of "an authorization provider of an intermediary prior requestor module requires authority verification by an authorization verifier of the originating prior requestor module as a prerequisite to providing the authorization data to an authorization verifier of the adjunct computer module."

Conclusion

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L Nalven whose telephone number is 571 272

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3839. The examiner can normally be reached on Monday - Thursday 8-6, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on 571 272 3838. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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